IN THE CLAIMS:

1-19 (Canceled).

20. (Currently amended) A method of detecting and identifying markers indicative of early stage cancer by:

differentially biopanning sera obtained from a normal individual and patients with cancer against epitope-expressing phage display libraries;

obtaining ~~from~~ epitope bearing clones displaying reactivity to antibodies present in sera of patients with early stage cancer but not in sera of normal individuals, including the step of identifying and excluding the sera of normal individuals that react strongly but nonspecifically to epitope bearing clones;

identifying all epitopes that are specific to early stage cancer as markers indicative of early stage cancer, including the step of maximizing the information content of the panel of markers while minimizing the number of epitopes; and

including all epitopes identified as markers in a microarray assay designed to detect early stage cancer.

21 (New) The method of claim 20 wherein the step of excluding the sera of normal individuals which react strongly but nonspecifically to epitope bearing clones further includes the step of excluding sera which show a unimodal pattern of dual fluorescence reaction with epitope bearing clones, where a first color indicates reaction with human immunoglobulin and a second color indicates reaction to phage capsid proteins.

22. (New) The method of claim 20 wherein the step of maximizing the information content of the panel of markers while minimizing the number of epitopes further includes satisfying the condition that epitopes reacting solely with self serum are included only if that self serum does not also cross react with epitopes isolated with sera of other patients.